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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,417	07/18/2003	Hajime Motoyama	03500.017428.	2800
5514 7590 10/05/2005 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER PHAM, HAI CHI	
			ART UNIT	PAPER NUMBER
			2861	
DATE MAILED: 10/05/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/621,417		MOTOYAMA, HAJIME	
	Examiner		Art Unit	
	Hai C. Pham		2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

Specification

1. The disclosure is objected to because the disclosure fails to indicate the subject matter being claimed in claim 3, namely, "lenses differing in refractive index from each other depending on wavelength" such that it is not clear whether the collimator lens 200 and the f- θ lens 210 have different diffractive index with respect to the wavelengths or lenses of the same functions (either collimator lens 200 or f- θ lens 210) are being compared with regard to the refractive index.

Appropriate correction is required.

Drawings

2. The drawings were received on 07/15/05. These drawings are accepted.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

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Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Fujita et al. (U.S. 6,437,816).

Fujita et al. discloses a laser exposing apparatus having a first laser source (e.g., semiconductor laser 103) emitting a first laser beam (113), a second laser source (gas laser 101) emitting a second laser beam (105) shorter in wavelength than the first laser beam (the gas laser 101 emitting green light whose wavelength is shorter than the red light emitted by the semiconductor laser 103) (Fig. 2), optical means image-forming lenses 110) for directing the first and second laser beams to a photosensitive member (photosensitive drum 111), and adjusting means (delay correction optical system 120) for selectable adjustment of respective optical path lengths of the first and second laser beams so that the optical path length of the first laser beam is set to be relatively shorter than the optical path length of the second laser beam, which is set to be relatively longer (the optical path length of the laser beam emitted from the shorter wavelength laser 101 being made longer than the optical path length of the laser beam emitted from the longer-wavelength laser 103) (Fujita et al. also indicates that the optical path length of at least one if not each of the laser beams is controllably adjusted by the optical timing adjusting member 120) (col. 22, lines 55-67 and col. (Fig. 4).

With regard to claim 3, it is well known in the art that optical lenses usually have refractive index, which inherently/naturally varies in accordance with the wavelengths of the incident laser beams.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. in view of Takahashi et al. (Pub. No. U.S. 2001/0050933).

Fujita et al. discloses all the basic limitations of the claimed invention except for the first and second laser sources being provided in a semiconductor chip.

Regardless Takahashi et al. discloses a first light-emitting point (A1) emitting a first laser beam of the wavelength of 650 nm and a second light-emitting point (A2) emitting a second laser beam of a longer wavelength of 780 nm, both being disposed on a semiconductor chip such that the two laser beams are focused on the same surface of the optical medium. Takahashi et al. also teaches the optical system such as the collimator lens (14) being known as having the refractive index dependent of the wavelength (paragraph [0031]).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the laser sources on the same semiconductor

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chip in the device of Fujita et al. as taught by Takahashi et al. The motivation for doing so would have been to provide a more compact exposure head.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. in view of Okuwaki et al. (U.S. 6,798,820).

Fujita et al. discloses all the basic limitations of the claimed invention except for the adjusting means having a rotating mechanism.

Okuwaki et al. discloses a multi-beam laser diode (5) having a plurality of light-emitting points (7a-7d) disposed in a straight line on the semiconductor substrate and being rotated about the optical axis such that the relative horizontal scanning positions are aligned and the pitch of the scanning lines is adjusted.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the rotating mechanism as taught by Okuwaki et al. in the device of Fujita et al. the motivation for doing so would have been to align the start positions of the horizontal scanning lines as well as to adjust the pitch of the scanning lines.

Allowable Subject Matter

8. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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9. The following is a statement of reasons for the indication of allowable subject matter: the primary reason for the indication of the allowability of claim 6 is the inclusion therein, in combination as currently claimed, of the limitations "wherein optical paths having shorter and longer optical path lengths from the respective laser sources to the photosensitive member are arranged consecutively" and "said adjusting means sets the optical path length to the optical path of the second laser beam", which are not found taught by the prior art of record considered alone or in combination.

Response to Arguments

10. Applicant's arguments filed 07/15/05 have been fully considered but they are not persuasive.

The applicant argued that "Fujita's delay correction optical system 120 does not provide for "selectable adjustment" as in the adjustment means of the present invention". The examiner respectfully disagrees. Fujita et al. teaches that the optical path length of each of the laser beams is adjusted using the delay correction optical system 120, which consists of several mirrors whose relative dispositions are to be adjusted for each of the laser beams depending on their wavelengths (col. 4, lines 56-67 and col. 22, lines 55-60), and the adjustment being controllably executed such that the laser beam having a shorter wavelength has a longer optical path such that all the laser beams have the same focusing points. In other words, each of the laser beams is selectively adjusted with regard to the respective optical path lengths in consideration of their respective wavelengths.

With regard to the reference that was made to the Takahashi reference within the rejection of claims 1 and 3 under § 102(e), the examiner only intended to draw Applicant's attention to a publication that supports the examiner's statement of the inherency regarding the wavelength dependency of the refractive index of the optical lenses. Since such characteristic is inherent to the optical lens, the rejection of claim 3 under § 102(e) is proper.

Conclusion

11. Applicant's amendment, which changed the scope of the base claim, necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



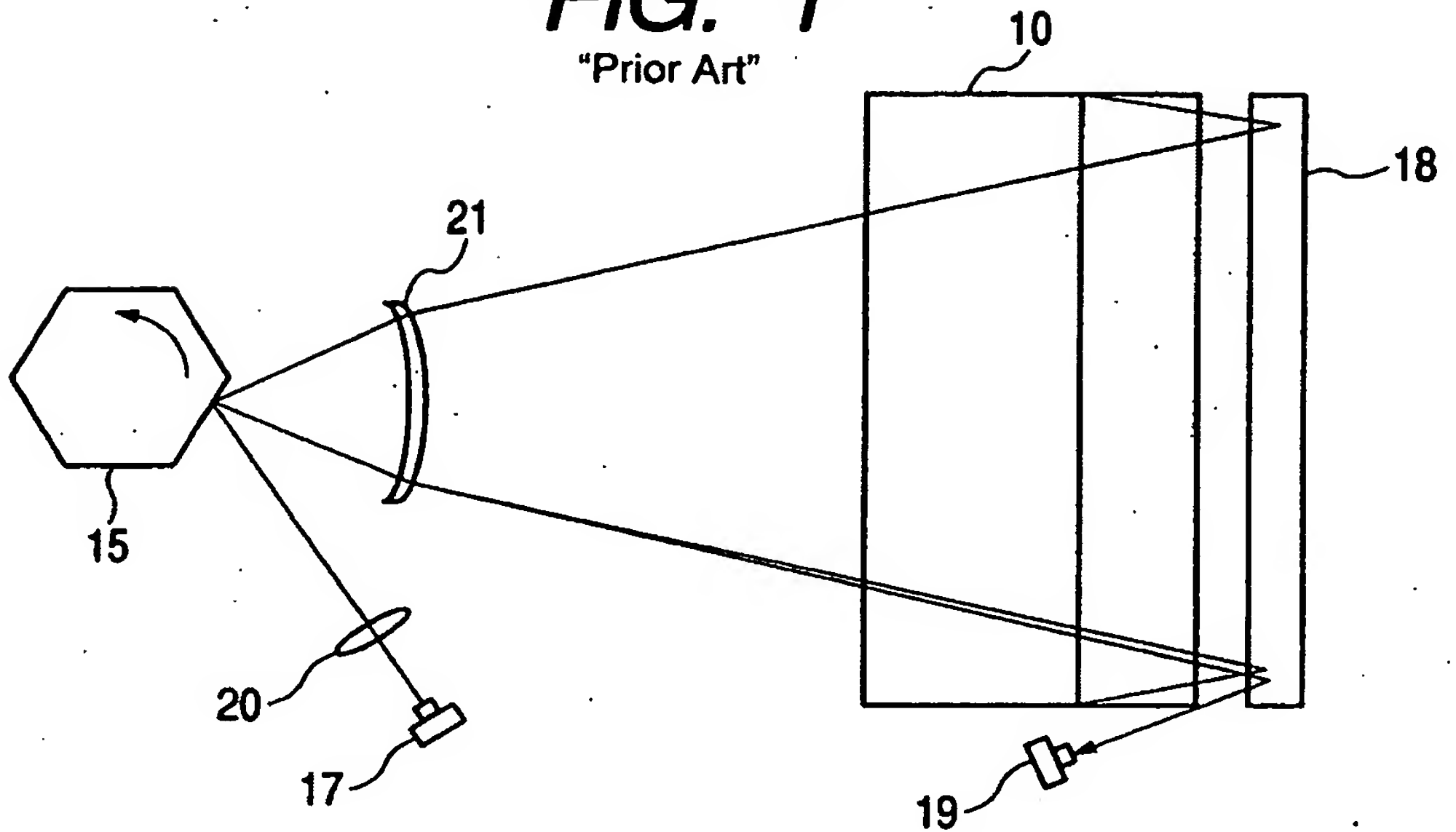
HAI PHAM
PRIMARY EXAMINER

September 30, 2005



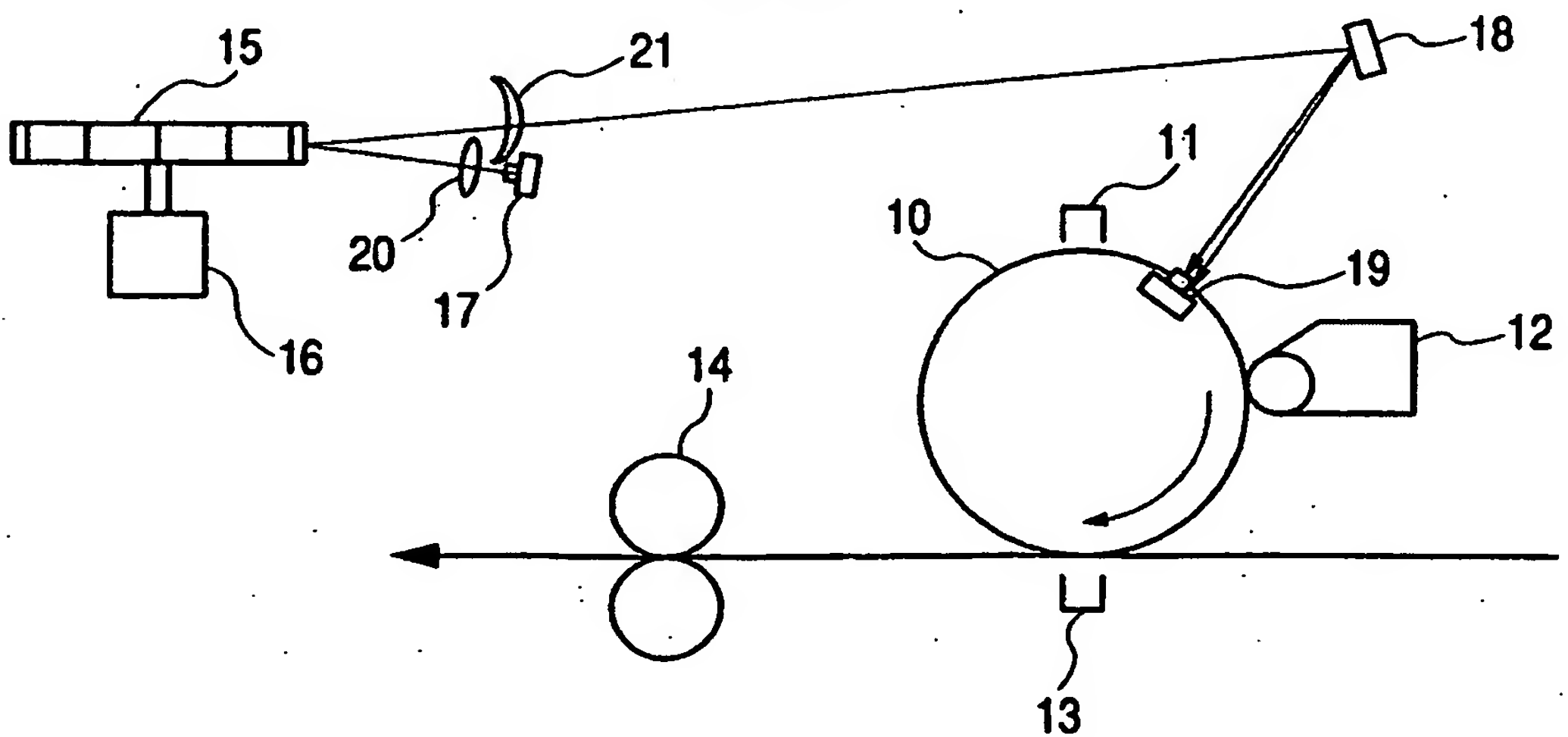
REPLACEMENT SHEET
1/6

FIG. 1
"Prior Art"



Approved
HCB
9/30/05

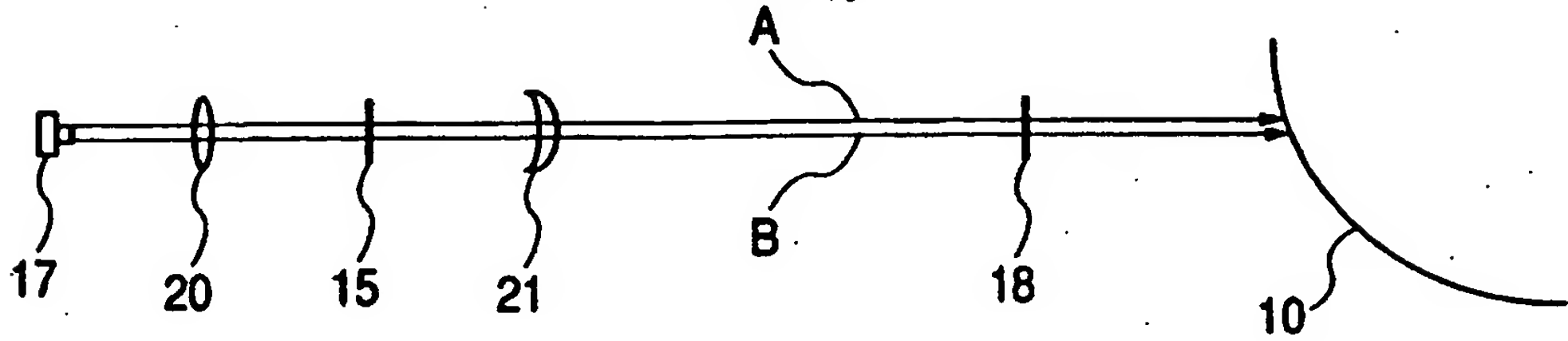
FIG. 2
"Prior Art"



REPLACEMENT SHEET
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FIG. 3

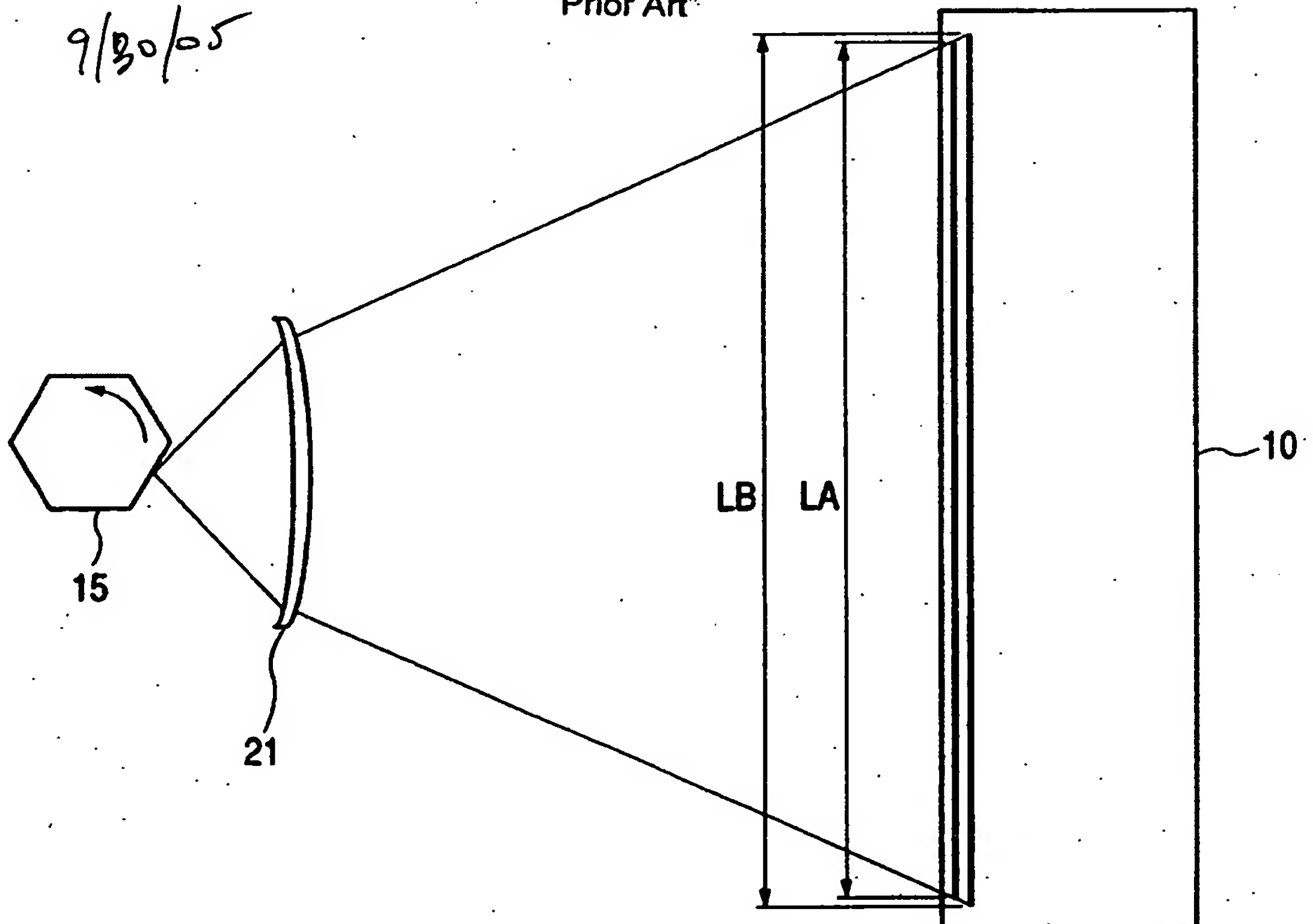
"Prior Art"



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FIG. 4

"Prior Art"



REPLACEMENT SHEET
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FIG. 5
"Prior Art"

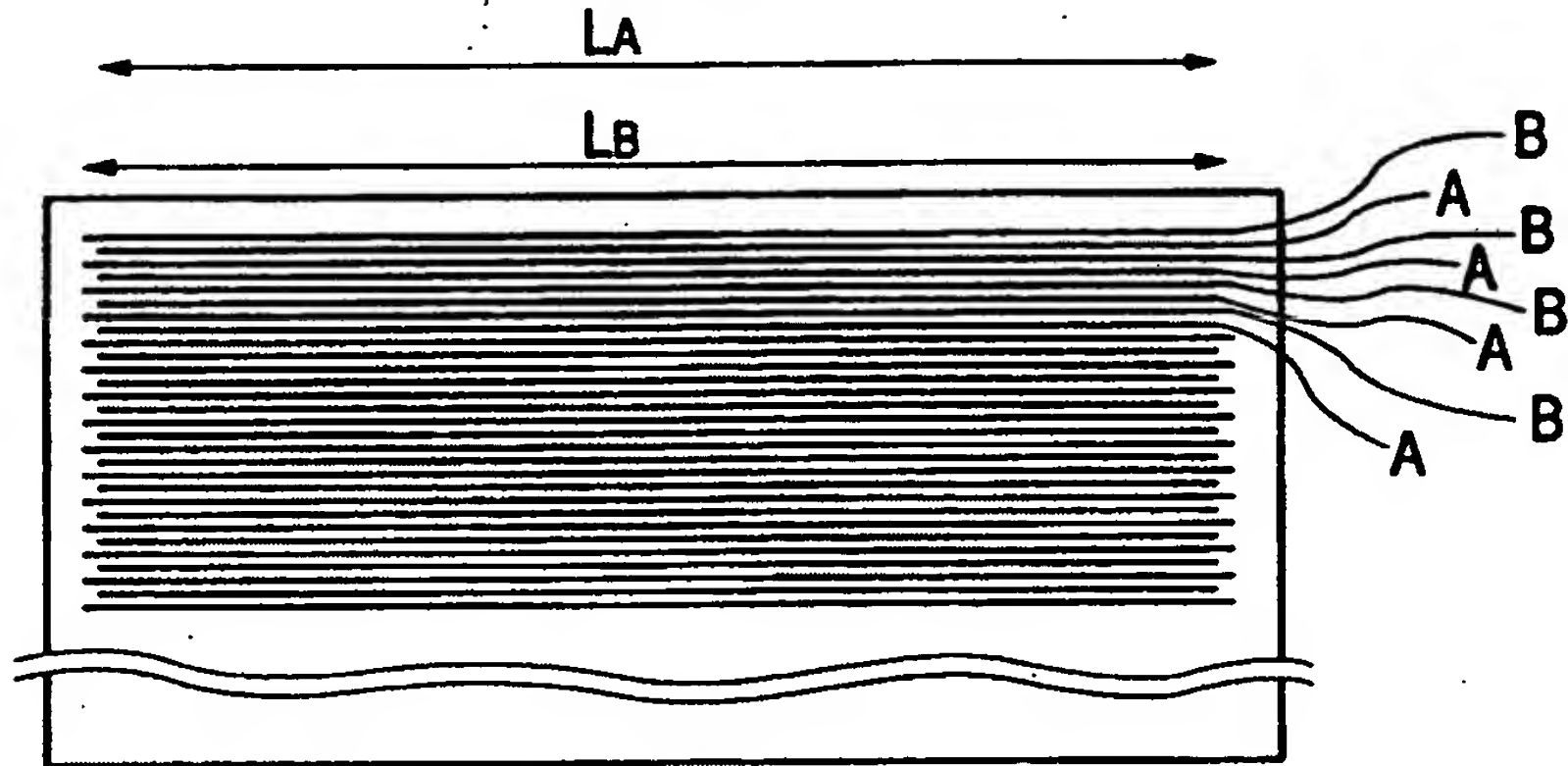


FIG. 6

